

WHAT IS CLAIMED IS:

1. A liquid container for a liquid ejection device comprising:

a liquid supply port for supplying liquid to a liquid  
5 ejection head,

a flexible member deformable in accordance with an amount  
of remaining liquid contained in the liquid container;

a vibration activating and detecting unit provided on  
a first surface of said liquid container, for emitting a  
10 vibration to said liquid; and

a rigid member provided on a second surface of said liquid  
container so as to be opposed to said vibration activating and  
detecting unit;

wherein an amount of remaining liquid is detected based  
15 on a vibration characteristic of said vibration activating and  
detecting unit which depends on a distance between said vibration  
activating and detecting unit and said rigid member.

2. A liquid container for a liquid ejection device according  
20 to claim 1, wherein said vibration activating and detecting  
unit includes a substrate capable of maintaining a constant  
shape irrespective of deformation of said liquid container.

3. A liquid container for a liquid ejection device according  
25 to claim 1, wherein

a through-hole is formed in said liquid container at a location corresponding to a vibration region of said vibration activating and detecting unit, and said vibration activating and detecting unit is provided on a substrate having a recess  
5 into which liquid of said liquid container flows, and a vibration is emitted from said vibration activating and detecting unit to said liquid via said recess.

4. A liquid container for a liquid ejection device according  
10 to claim 1, wherein said rigid member is stuck to an outer or inner surface of said liquid container.

5. A liquid container for a liquid ejection device according to claim 1, wherein a plurality of said vibration activating  
15 and detecting unit and a plurality of said rigid members are arranged in a direction in which a liquid level of liquid in said liquid container changes.

6. A liquid container for a liquid ejection device according  
20 to claim 2, wherein an adhesive layer with which said substrate is liquid tightly fastened to said liquid container, is formed on a front or back surface of said substrate.

7. A liquid container for a liquid ejection device according  
25 to claim 1, wherein said liquid container is housed in a hard

case, and said rigid member is formed with said hard case.

8. A liquid container in use for a liquid ejection device according to claim 1, wherein said liquid container is housed  
5 in a hard case which has a raised portion in a predetermined region located apart from said liquid supply port in a region of said liquid container which serves as a bottom surface when said liquid container is set in the liquid ejection device.

10 9. A liquid container in use for a liquid ejection device according to claim 1, wherein conductive patterns are formed on a surface of said liquid container, which said conductive patterns are connected to said vibration activating and detecting unit.

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10. A liquid container for a liquid ejection device comprising:

a liquid supply port for supplying liquid to a liquid ejection head,

20 a bag-like flexible member deformable in accordance with an amount of remaining liquid contained therein;

a vibration activating unit provided on a first surface of said liquid container, for emitting a vibration to said liquid; and

25 a vibration detecting unit provided on a second surface

of said liquid container so as to be opposed to said vibration activating unit;

wherein an amount of remaining liquid is detected based on a vibration characteristic of said vibration detecting unit.

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